

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Previously Presented): A polarizer: comprising a polyvinyl alcohol-based film which is at least dyed with at least iodine and uniaxially stretched,
having a single transmittance of 43% or more, a polarizing efficiency of 99.9% or more,
a dichroic ratio of 30 or more, wherein the dichroic ratio is calculated from a parallel transmittance (T_p) and a crossed transmittance (T_c) at a wavelength of 440 nm according to the following formula:

$$\text{dichroic ratio} = \{\log_{10}(1/k_2)\} / \{\log_{10}(1/k_1)\}, \text{ where } k_1 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} + (T_p - T_c)^{1/2}]}$$

and

$$k_2 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} - (T_p - T_c)^{1/2}]},$$

and, an iodine content is of 1.5 to 2.5% by weight and a potassium content is of 0.2 to 0.6% by weight.

2. (Canceled).

3. (Original): A method of manufacturing polarizer, comprising the steps of:
dyeing a polyvinyl alcohol-based film with iodine;
uniaxially stretching the iodine-dyed polyvinyl alcohol-based film in an aqueous boric acid solution containing an iodide at a concentration of 4% by weight or more; and

subsequently washing the film with an aqueous solution containing an iodide at a concentration of 0.8% by weight or more.

4. (Original): The method of manufacturing polarizer according to Claim 3, wherein the aqueous boric acid solution contains the iodide at a concentration of 4 to 12% by weight in the uniaxially stretching step.

5. (Currently Amended): The method of manufacturing a polarizer according to Claim 3 [[or 4]], wherein the aqueous iodide solution contains the iodide at a concentration of 0.8 to 2.5% by weight in the washing step.

6. (Currently Amended): The method of manufacturing polarizer according to ~~any one of Claims 3 to 5~~ Claim 3, further comprising the step of drying the film at a temperature of 70°C or lower after the step of washing with the aqueous iodide solution.

7. (Currently Amended): The method of manufacturing polarizer according to ~~any one of Claims 3 to 6~~ Claim 3, wherein the iodide is potassium iodide.

8. (Currently Amended): The method of manufacturing polarizer according to ~~any one of Claims 3 to 7~~ Claim 3, wherein the iodine dyeing step is performed together with the stretching step.

9. (Currently Amended): The method of manufacturing polarizer according to ~~any one of Claims 3 to 8~~ Claim 3, wherein

the resulting polarizer has a single transmittance of 43% or more, a polarizing efficiency of 99.9% or more, and

a dichroic ratio of 30 or more, wherein the dichroic ratio is calculated from a parallel transmittance (T_p) and a crossed transmittance (T_c) at a wavelength of 440 nm according to the following formula:

dichroic ratio = $\{\log_{10}(1/k_2)\} / \{\log_{10}(1/k_1)\}$, where $k_1 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} + (T_p - T_c)^{1/2}]}$
and

$$k_2 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} - (T_p - T_c)^{1/2}]},$$

and, an iodine content is of 1.5 to 2.5% by weight and a potassium content is of 0.2 to 0.6% by weight.

10. (Canceled).

11. (Currently Amended): A polarizer obtained by the method according to ~~any one of Claims 3 to 9~~ Claim 3.

12. (Currently Amended): A polarizing plate, comprising the polarizer according to Claim 1 [[or 11]] and a transparent protective film provided on at least one side of the polarizer.

13. (Original): The polarizing plate according to Claim 12, wherein
a single transmittance is of 43% or more, a polarizing efficiency is of 99.9% or more, and
a dichroic ratio is of 30 or more, wherein the dichroic ratio is calculated from a parallel
transmittance (T_p) and a crossed transmittance (T_c) at a wavelength of 440 nm according to the
following formula:

- dichroic ratio = $\{\log_{10}(1/k_2)\} / \{\log_{10}(1/k_1)\}$, where $k_1 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} + (T_p - T_c)^{1/2}]}$
and

$$k_2 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} - (T_p - T_c)^{1/2}]}.$$

14. (Currently Amended): An optical film, comprising the polarizer according to Claim 1 or
~~11 or the polarizing plate according to Claim 12 or 13~~ and at least one other optical layer laminated
with the polarizer or the polarizing plate.

15. (Currently Amended): An image display, comprising at least one piece of the polarizer
according to Claim 1 ~~or 11, the polarizing plate according to Claim 12 or 13, or the optical film~~
~~according to Claim 14.~~

16. (New): A polarizing plate, comprising the polarizer according to Claim 11 and a
transparent protective film provided on at least one side of the polarizer.

17. (New): The polarizing plate according to Claim 16, wherein
a single transmittance is of 43% or more, a polarizing efficiency is of 99.9% or more, and
a dichroic ratio is of 30 or more, wherein the dichroic ratio is calculated from a parallel
transmittance (T_p) and a crossed transmittance (T_c) at a wavelength of 440 nm according to the
following formula:

$$\text{dichroic ratio} = \{\log_{10}(1/k_2)\} / \{\log_{10}(1/k_1)\}, \text{ where } k_1 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} + (T_p - T_c)^{1/2}]}$$

and

$$k_2 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} - (T_p - T_c)^{1/2}]}.$$

18. (New): An optical film, comprising the polarizer according to Claim 11 and at least one
other optical layer laminated with the polarizer or the polarizing plate.

19. (New): An image display, comprising at least one piece of the polarizer according to
Claim 11.